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Sequence Listing could not be accepted due to errors.

See attached Validation Report.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2009; month=8; day=7; hr=8; min=1; sec=42; ms=458; ]

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Reviewer Comments:

<210> 15

<211> 3933

<212> DNA

<213> Pseudomonas sp. HJ-2 (phb locus)

<400> 15

gagctcaatg cgccgcagga ctgggtgtgcg aggacaaccc ggcgtcaccc ggggacattg  
60

ttcacatccg caaagcgcca gagacttgcc cgctgttcca aggtcttaat taacgaggaa  
120

tggtaatgg gtactgcgag caatgcggca cgtatagctc tggtcaccgg tggtatggc  
180

ggtatcggtt cggcgatcag ccagcgctg catcggtatg gttcacccgt ggtggtggc  
240

tgtaatccct actccagccg caaggcttcc tggattgcca cgcaactcga ggcgggctt  
300

cacttccact gcatcgactg cgacatcacc gactggata gcacccgcca ggccttcgac  
360

atggtgacg agactgtcg cccgatcgat gtattggtca acaatgccgg catcacccgc  
420

gacggcactt tccgcaagat gtcccccggaa aactggaagg cggtgatcga taccaatctc  
480

accggcctgt tcaacacaac caagcaggc atcgaggca tgctggcaa gggctggga  
540

cgcgtcatca acatctcctc aatcaatggc cagcgaggcc agttcggca gaccaactac  
600

tccgcgnca aggctggcat tcatggcttc agcatggct tgccccgca ggtgagtggc  
660

aaggcggtga ccgtcaatac ggtttccct ggctacatca agaccgacat gaccgcggcg  
720

attcgcccg acatcctcga agacatgatt actggcattc ccgtggcccg tctcggccag  
780

cccgaggaga tcgcctcgat cgtggcctgg ctggcctccg atcagtctgc ctatgccacc  
840

ggcgccgact tctcggtgaa tggcgcatg aacatgcagt gatgcgccat tcgcgcctc  
900

gctcagccat gacatgaggt gttccagatg atcgaagtcg ttatcgtcgc cgccactcgc  
960

accgccatcg gcgccttcca ggggagcctg gccggcactc ccgcgttga actggcgcc  
1020

acggtgatcc gcgcctgct cgaacagacc gctctggata gcagtcaggt ggatgaagtg  
1080

atactcgcc acgtactcac cgccggtgct ggcagaatac cgctcgccag gcancnggtc  
1140

Regarding the above <213> response; per 1.823 of the Sequence Rules, the only valid responses are the Genus species of the organism, "Artificial Sequence", or "Unknown". "Artificial Sequence" and "Unknown" require explanation in the <220>-<223> section; please give the source of the genetic material. Please just list the Genus species as the <213> response; put explanatory matter in the <220>-<223> section; please correct all similar sequences.

The n's at locations 608, 1134, and 1136 are not explained above.

<210> 16  
<211> 251  
<212> PRT  
<213> Pseudomonas sp. HJ-2 (NADPH-dependent acetoacetyl-CoA reductase (phbB))

<400> 16

Met Gly Thr Ala Ser Asn Ala Ala Arg Ile Ala Leu Val Thr Gly Gly  
1 5 10 15

Met Gly Gly Ile Gly Thr Ala Ile Ser Gln Arg Leu His Arg Asp Gly  
20 25 30

Phe Thr Val Val Val Gly Cys Asn Pro Tyr Ser Ser Arg Lys Ala Ser  
35 40 45

Trp Ile Ala Thr Gln Leu Glu Ala Gly Phe His Phe His Cys Ile Asp  
50 55 60

Cys Asp Ile Thr Asp Trp Asp Ser Thr Arg Gln Ala Phe Asp Met Val  
65 70 75 80

His Glu Thr Val Gly Pro Ile Asp Val Leu Val Asn Asn Ala Gly Ile  
85 90 95

Thr Arg Asp Gly Thr Phe Arg Lys Met Ser Pro Glu Asn Trp Lys Ala  
100 105 110

Val Ile Asp Thr Asn Leu Thr Gly Leu Phe Asn Thr Thr Lys Gln Val  
115 120 125

Ile Glu Gly Met Leu Ala Lys Gly Trp Gly Arg Val Ile Asn Ile Ser  
130 135 140

Ser Ile Asn Gly Gln Arg Gly Gln Phe Gly Gln Thr Asn Tyr Ser Ala  
145 150 155 160

Xaa Lys Ala Gly Ile His Gly Phe Ser Met Ala Leu Ala Arg Glu Val  
165 170 175

Please correct the above <213> response to just indicate the Genus species of the organism; place explanatory matter in the <220>--<223> section. Also, the above <213> response exceeds the Sequence Rules' required 72-character line limit. The "Xaa" at location 161 is not explained above.

<210> 17

<211> 392

<212> PRT

<213> Pseudomonas sp. HJ-2 (beta-ketothiolase (phbA))

<400> 17

Met Ile Glu Val Val Ile Val Ala Ala Thr Arg Thr Ala Ile Gly Ala  
1 5 10 15

Phe Gln Gly Ser Leu Ala Gly Thr Pro Ala Val Glu Leu Gly Ala Thr  
20 25 30

Val Ile Arg Arg Leu Leu Glu Gln Thr Ala Leu Asp Ser Ser Gln Val  
35 40 45

Asp Glu Val Ile Leu Gly His Val Leu Thr Ala Gly Ala Gly Arg Ile  
50 55 60

Pro Leu Ala Arg Xaa Xaa Val Ile Ala Gly Leu Pro His Ala Val Pro  
65 70 75 80

Please correct the above <213> response. Also, the "Xaa's" at locations 69-70 are not explained above.

\*\*\*\*\*

Application No: 10583840 Version No: 2.0

**Input Set:**

**Output Set:**

**Started:** 2009-07-22 14:17:12.979  
**Finished:** 2009-07-22 14:17:15.807  
**Elapsed:** 0 hr(s) 0 min(s) 2 sec(s) 828 ms  
**Total Warnings:** 18  
**Total Errors:** 6  
**No. of SeqIDs Defined:** 18  
**Actual SeqID Count:** 18

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 402	Undefined organism found in <213> in SEQ ID (12)
W 402	Undefined organism found in <213> in SEQ ID (13)
W 402	Undefined organism found in <213> in SEQ ID (14)
W 402	Undefined organism found in <213> in SEQ ID (15)
E 342	'n' position not defined found at POS: 608 SEQID(15)
E 342	'n' position not defined found at POS: 1134 SEQID(15)
E 342	'n' position not defined found at POS: 1136 SEQID(15)
W 402	Undefined organism found in <213> in SEQ ID (16)
E 341	'Xaa' position not defined SEQID (16) POS (161)

**Input Set:**

**Output Set:**

**Started:** 2009-07-22 14:17:12.979  
**Finished:** 2009-07-22 14:17:15.807  
**Elapsed:** 0 hr(s) 0 min(s) 2 sec(s) 828 ms  
**Total Warnings:** 18  
**Total Errors:** 6  
**No. of SeqIDs Defined:** 18  
**Actual SeqID Count:** 18

Error code	Error Description
W 402	Undefined organism found in <213> in SEQ ID (17)
E 341	'Xaa' position not defined SEQID (17) POS (69)
E 341	'Xaa' position not defined SEQID (17) POS (70)
W 402	Undefined organism found in <213> in SEQ ID (18)

<110> LG CHEM, LTD.

<120> Poly(3-hydroxyalkanoate) Block Copolymer Having Shape Memory Effect

<130> LC05PCT042

<140> 10583840

<141> 2009-07-22

<150> KR 10-2005-0059907

<151> 2005-07-04

<160> 18

<170> KopatentIn 1.71

<210> 1

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Choi3 (PCR Primer)

<400> 1

ccggccstgsa tcaaggac

18

<210> 2

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Choi4 (PCR Primer)

<400> 2

gytsgtgsgtgc tcyycgttcc

20

<210> 3

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> HJ-PHB-N (PCR Primer)

<400> 3

caccatgctg agttgcgc t tagc

24

<210> 4

<211> 27  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> HJ-PHB-C (PCR Primer)

<400> 4  
tcadmsytty acrtarcgkc ctggyg

27

<210> 5  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> SCL-1 (PCR Primer)

<400> 5  
gatcgatacc aatctcaccg

20

<210> 6  
<211> 21  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> SCL-2 (PCR Primer)

<400> 6  
caaagccagt ggttcgacgt a

21

<210> 7  
<211> 19  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> SCL-3 (PCR Primer)

<400> 7  
ctgctgaaac tgttggagc

19

<210> 8  
<211> 47  
<212> DNA  
<213> Artificial Sequence

<220>

<223> SD-BA-N (PCR Primer)

<400> 8

gggggtacca ataaggagat atacatatgg gtactgcgag caatgcg

47

<210> 9

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> BA-C (PCR Primer)

<400> 9

cccaacttgtt cagcgctcga tggccagc

28

<210> 10

<211> 28

<212> DNA

<213> Artificial Sequence

<220>

<223> SD-phbC-N (PCR Primer)

<400> 10

gggcatatga cccagaagaa caacagcg

28

<210> 11

<211> 39

<212> DNA

<213> Artificial Sequence

<220>

<223> phbC-C (PCR Primer)

<400> 11

cccaacttgtt cadmscttya crtaaacgtcc tggcgcygc

39

<210> 12

<211> 756

<212> DNA

<213> Pseudomonas sp. HJ-2

<220>

<221> variation

<222> (482)

<223> n=A, C, G or T

<400> 12

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ccctactcca gccgcaaggc ttctggatt gccacgcaac tcgaggcggg cttaacttc	180
cactgcatacg actgcgacat caccgactgg gatagcaccc gccaggcctt cgacatggtg	240
cacgagactg tcggcccgat cgatgtattt gtcaacaatg ccggcatcac ccgcgacggc	300
actttccgca agatgtcccc ggaaaactgg aaggcggtga tcgataccaa tctcaccggc	360
ctgttcaaca caaccaagca ggtcatcgag ggcattgtgg ccaaggcgtg gggacgcgtc	420
atcaacatct cctcaatcaa tggccagcga ggccagttcg ggcagaccaa ctactccgc	480
gncaaggctg gcattcatgg cttagcatg gccttggccc gcgaggttag tggcaaggc	540
tgaccgtca atacggttcc ccctggctac atcaagaccg acatgaccgc ggcatcg	600
ccggacatcc tcgaagacat gattactggc attccgtgg gccgtctcg ccagcccgag	660
gagatcgctt cgatcggtgc ctggctggcc tccgatcagt ctgcctatgc caccggcgcc	720
gacttctcg tgaatggcg catgaacatg cagtga	756

<210> 13  
 <211> 1179  
 <212> DNA  
 <213> *Pseudomonas* sp. HJ-2

<220>  
 <221> variation  
 <222> (207)  
 <223> n=A, C, G or T

<220>  
 <221> variation  
 <222> (209)  
 <223> n=A, C, G or T

<400> 13	
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accgctctgg atagcagtca ggtggatgaa gtgatactcg gccacgtact caccggcggt	180
gctggcagaa taccgctcgc caggcancng gtcacgcggc gcctgccaca cgccgtaccc	240
gcgtatgaccc tgaacaagggt ctgtggctcc ggctgaaag ccctgcaccc gggcgcccg	300
gccatccgct gtggcgatgc cgaggtggtg attgccggtg gcatggagaa catgagcctg	360
tcgttctatg tcctgccccaa ggcccgccacc ggctgcgc tggccacgc gcagctggtc	420

gacagcatga	tcgtcgacgg	cctgtggac	gccttcaacg	actaccacat	ggggatcact	480
gccgagaacc	tggtagacaa	gtacggcatac	agccgcgaag	cccaggacga	attcgccgcc	540
gcctcgcagc	agaaaagccgt	ggccgcacatc	gagaccggtc	gcttccgcga	cgagatcgta	600
ccggtagacca	ttcccgagcg	caagggcgag	gcgctgagct	tcgacaccga	cgaacagcca	660
cgcgcggca	ccaccgcgcga	gtcgctgggc	aagctgaaac	cggcattcaa	gaacgacggc	720
agcgttactg	ccggcaacgc	ttccagtctc	aacgacggcg	ccggccgggt	actgctgatg	780
agtgcggcaa	aggccgcagc	gcttggtctg	ccagtgtgg	cgaagatcg	cgcctacgccc	840
aatgccggcg	tcgacccggc	gatcatgggt	atcgacccgg	tgtcgccac	ccgcagttgc	900
ctggagaagg	cgggctggag	tctggcagag	ctggatctga	tcgaggccaa	tgaaggcttc	960
cgggcccagg	ccctggccgt	gggtcaggag	ctgggctggg	atgctggcag	ggttaacgtc	1020
aacggcggcg	ccatcgccct	cggccacccc	attggcgcct	ccggctgccc	cgtactggtc	1080
agcctgctgc	atgaaatgct	caggcgcgac	cgaaaaaaag	gcctcgctac	cctgtgtatc	1140
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<210> 14  
 <211> 1701  
 <212> DNA  
 <213> *Pseudomonas* sp. HJ-2 (SCL-PHA synthase (phaC))

<400> 14						
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ttcgtcctgc	agcaactgcg	tttatacgtg	gcgcaaaata	cttggttcag	cgggcacgac	120
caaagccagt	ggttcgacgt	acctgtcgag	gcgttggagc	aactgcaggc	ggactaccaa	180
caacagtgg	ccgaacttgg	ccagcaattt	ctgagctgcc	agccgttgc	attcagcgat	240
cgtcgcttcg	ccagtgccaa	ctggagcgaa	ccgctgttcg	gttccctggc	tgccttctac	300
ctgctgaatt	ccggtttct	gctgaaactg	ttggagcttc	tccccatcga	tgagcagaag	360
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ttggggcgatt	tcgaagtgg	cgtgaatctg	gccaccaccc	ctggtgcgt	ggtactggaa	600
acccctctgt	tccagctgat	ccagtattcg	ccgctcagcg	aaacgcaata	ccagcggccg	660
atattcatgg	tcccgccctg	gatcaacaag	tactacatcc	ttgacctcg	gccccgaaaac	720

tctctaatacc	gtcatctact	ggagcgaggc	catcaagttt	ttctgtatgtc	ctggcgcaac	780
ttcaactcagg	aacaggccga	catcacctgg	gaggcagatca	tccaggacgg	agtgtatcagc	840
gcccctgcgca	ctaccgggc	catcagtgg	gagcgccacc	tgaactgttt	gggtttctgc	900
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attgccagcc	tgagtctatt	cgcactttt	cttgactacc	ttgataccgg	gccgatcagc	1020
gtcttcgtcg	atgagcaact	ggtggcctac	cgtgagcgca	ccatcggtgg	ccatggtggc	1080
aaatgtggcc	tgttccggcg	tgaggacatg	ggcaataacct	tctccctgct	gcggcccaac	1140
gagctgtggt	ggaactacaa	cgtagacaaa	tatctcaagg	ggcagaagcc	gctggctctg	1200
ggtctactgt	tctggAACAA	cgtacggcacc	aatctggcg	ggcccccgtta	ttgctggtat	1260
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atcgtgccct	ggcgaagcgc	ctatgccaggc	acggaattgc	tgggaggtcc	aaagcgcttt	1440
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cattactggg	tcaatgaaca	catagcgccc	gtagctgacg	actggctgca	gggagctcag	1560
cagcattccg	gcagttggtg	gggtgactgg	ttcgccctgg	tgaccggcta	tgccggccca	1620
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<210> 15  
 <211> 3933  
 <212> DNA  
 <213> Pseudomonas sp. HJ-2 (phb locus)

<400> 15						
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tggtaatgg	gtactgcgag	caatgcggca	cgtatagctc	tggtcacccgg	tggtatgggc	180
ggtatcggt	cggcgatcag	ccagcgctg	catcgggatg	gcttcaccgt	ggtggtggc	240
tgtaatccct	actccagccg	caaggcttcc	tggattgcca	cgcaactcga	ggcgggcttt	300
cacttccact	gcatcgactg	cgacatcacc	gactggata	gcacccgcca	ggccttcgac	360
atggtgcacg	agactgtcg	cccgatcgat	gtattggta	acaatgcgg	catcacccgc	420
gacggcactt	tccgcaagat	gtccccggaa	aactggaagg	cggtgatcga	taccaatctc	480

accggcctgt tcaacacaac caagcaggtc atcgaggca tgctggcaa gggctggga 540  
cgcgtcatca acatctcctc aatcaatggc cagcgaggcc agttcggca gaccaactac 600  
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aaggcggtga ccgtcaatac ggttccctt ggctacatca agaccgacat gaccggcg 720  
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cccgaggaga tcgcctcgat cgtggcctgg ctggcctccg atcagtctgc ctatgccacc 840  
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accggtcgct tccgcgacga gatcgtcccg gtgagcattc cgcaacgcgaa gggcgaggcg 1560  
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aaaaaaaggcc tgcgtaccct gtgtatcggt ggcggccagg gctggcgct ggccatcgag 2100  
cgctgagtga cgcttcgctg actctgcgg acgtgcggcc ctgcacccgc accggccaggc 2160

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gccccaaagta actttctgct gagcaaccct gatgccctgc aacgcctagt ggaaacccag 2700  
ggcgccagcc tactaagtgg cctgttgcat ctgccagtg acctgcaggc aggcaagttg 2760  
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gtggtaactgg aaaccctct gttccagctg atccagtatt cggcgctcag cgaaacgcaa 2880  
taccagcggc cgatattcat ggtcccgccc tggatcaaca agtactacat cttgaccc 2940  
gggcccggaaa actctctaat ccgtcatcta ctggagcgag gccatcaagt ttttctgatg 3000  
tcctggcgca acttactca ggaacaggcc gacatcacct gggaggcagat catccaggac 3060  
ggagtgatca gcgcctgcg cactaccgg gccatcaagt gtgagcgcca cctgaactgt 3120  
ttgggtttct gcatcgccgg caccatgtcg agttgcgtc tagcggtgtt ggcagcgctg 3180  
ggcgaccagg acattgccag cctgagtcta ttgcactt ttcttgacta cttgataacc 3240  
gggcccggatca gcgtttcggt cgatgagcaa ctggggccct accgtgagcg caccatcggt 3300  
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ctgcggccca acgagctgtg gtggaaactac aacgtagaca aatatctcaa ggggcagaag 3420  
ccgctggctc tgggtctact gttctggaaac aacgacagca ccaatctgcc gggggccctg 3480  
tattgctggat atctgcgccta cacctacctg cagaacgacc tcaaattcggtt ggagttggat 3540  
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3933

<210> 16  
<211> 251  
<212> PRT  
<213> Pseudomonas sp. HJ-2 (NADPH-dependent acetoacetyl-CoA reductase (phbB))

<400> 16  
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1 5 10 15  
  
Met Gly Gly Ile Gly Thr Ala Ile Ser Gln Arg Leu His Arg Asp Gly  
20 25 30  
  
Phe Thr Val Val Val Gly Cys Asn Pro Tyr Ser Ser Arg Lys Ala Ser  
35 40 45  
  
Trp Ile Ala Thr Gln Leu Glu Ala Gly Phe His Phe His Cys Ile Asp  
50 55 60  
  
Cys Asp Ile Thr Asp Trp Asp Ser Thr Arg Gln Ala Phe Asp Met Val  
65 70 75 80  
  
His Glu Thr Val Gly Pro Ile Asp Val Leu Val Asn Asn Ala Gly Ile  
85 90 95  
  
Thr Arg Asp Gly Thr Phe Arg Lys Met Ser Pro Glu Asn Trp Lys Ala  
100 105 110  
  
Val Ile Asp Thr Asn Leu Thr Gly Leu Phe Asn Thr Thr Lys Gln Val  
115 120 125  
  
Ile Glu Gly Met Leu Ala Lys Gly Trp Gly Arg Val Ile Asn Ile Ser  
130 135 140  
  
Ser Ile Asn Gly Gln Arg Gly Gln Phe Gly Gln Thr Asn Tyr Ser Ala  
145 150 155 160  
  
Xaa Lys Ala Gly Ile His Gly Phe Ser Met Ala Leu Ala Arg Glu Val  
165 170 175  
  
Ser Gly Lys Gly Val Thr Val Asn Thr Val Ser Pro Gly Tyr Ile Lys  
180 185 190  
  
Thr Asp Met Thr Ala Ala Ile Arg Pro Asp Ile Leu Glu Asp Met Ile  
195 200 205  
  
Thr Gly Ile Pro Val Gly Arg Leu Gly Gln Pro Glu Glu Ile Ala Ser  
210 215 220  
  
Ile Val Ala Trp Leu Ala Ser Asp Gln Ser Ala Tyr Ala Thr Gly Ala  
225 230 235 240  
  
Asp Phe Ser Val Asn Gly Gly Met Asn Met Gln  
245 250

<210> 17  
<211> 392  
<212> PRT  
<213> Pseudomonas sp. HJ-2 (beta-ketothiolase (phbA))

<400> 17  
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Phe Gln Gly Ser Leu Ala Gly Thr Pro Ala Val Glu Leu Gly Ala Thr  
20 25 30

Val Ile Arg Arg Leu Leu Glu Gln Thr Ala Leu Asp Ser Ser Gln Val  
35 40 45

Asp Glu Val Ile Leu Gly His Val Leu Thr Ala Gly Ala Gly Arg Ile  
50 55 60

Pro Leu Ala Arg Xaa Xaa Val Ile Ala Gly Leu Pro His Ala Val Pro  
65 70 75 80

Ala Met Thr Leu Asn Lys Val Cys Gly Ser Gly Leu Lys Ala Leu His  
85 90 95

Leu Gly Ala Gln Ala Ile Arg Cys Gly Asp Ala Glu Val Val Ile Ala  
100 105 110

Gly Gly Met Glu Asn Met Ser Leu Ser Ser Tyr Val Leu Pro Lys Ala  
115 120 125

Arg Thr Gly Leu Arg Met Gly His Ala Gln Leu Val Asp Ser Met Ile  
130 135 140

Val Asp Gly Leu Trp Asp Ala Phe Asn Asp Tyr His Met Gly Ile Thr  
145 150 155 160

Ala Glu Asn Leu Val Asp Lys Tyr Gly Ile Ser Arg Glu Ala Gln Asp  
165 170 175

Glu Phe Ala Ala Ala Ser Gln Gln Lys Ala Val Ala Ala Ile Glu Thr  
180 185 190

Gly Arg Phe Arg Asp Glu Ile Val Pro Val Ser Ile Pro Gln Arg Lys  
195 200 205

Gly Glu Ala Leu Ser Phe Asp Thr Asp Glu Gln Pro Arg Ala Gly Thr  
210 215 220

Thr Ala Glu Ser Leu Gly Lys Leu Lys Pro Ala Phe Lys Asn Asp Gly  
225 230 235 240

Ser Val Thr Ala Gly Asn Ala Ser Ser Leu Asn Asp Gly Ala Ala Ala  
245 250 255

Val Leu Leu Met Ser Ala Ala Lys Ala Ala Leu Gly Leu Pro Val